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DRAW
FOR THE
MOVIES

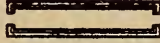
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Mr. Croy, John Robert

How to Draw For the Movies

OR THE PROCESS OF CARTOON ANIMATION



A PRACTICAL TALK
DEALING WITH THE DIFFERENT
INDIVIDUAL PHASES OF
MOTION PICTURE
CARTOONING



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*"An Investment in Knowledge is the Best
Investment in the World."*

DEDICATED TO
EVERYONE SINCERE IN THEIR ASPIRATIONS TO ACHIEVE
INDIVIDUAL DEGREES OF ART SUCCESS



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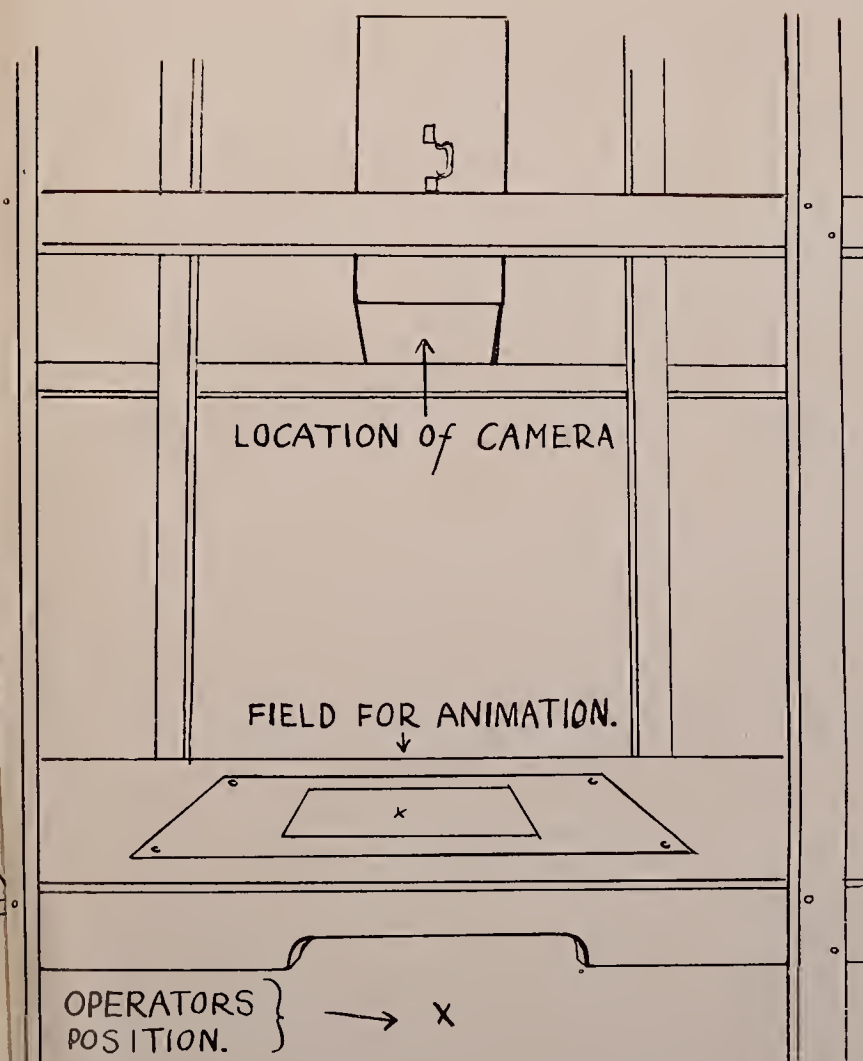
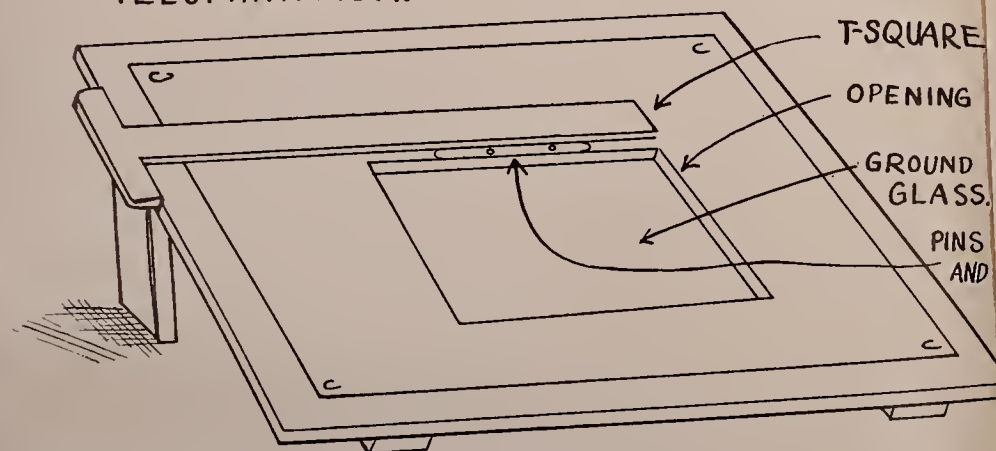
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Plate 1 — Materials and Equipment

DRAWING BOARD SHOWING
HOW OPENING SHOULD BE MADE
NOTICE THE CONVENIENT LOCATION. WHERE
BAR AND PINS ARE PLACED. ONE OR TWO
ELECTRIC LIGHT BULBS MAY BE USED FOR
ILLUMINATION.



THE STUDENT IS REQUESTED TO PAY PARTICULAR ATTENTION TO CONSTRUCTION OF DRAWING BOARD
AND MANNER OF PHOTOGRAPHING DRAWINGS

The Animated Cartoon

THE process of animating a Cartoon seems to have been the discovery of several ingenious artists one of which is J. R. Bray and to who much credit is given for the development of this field. But after all the process is very simple inasmuch as it is based on the making of paper transparent. It is therefore necessary to have a special arranged drawing board. A common kitchen bread board having a rectangular opening cut into its center will fill the purpose very well. The opening should be 9x12 inches and should be covered with a piece of ordinary window glass. The pegs which are nothing but rivets or projections set $4\frac{1}{4}$ inches apart in a bar $5\frac{1}{2}$ inches in length are fastened to the board at the top of the rectangle and immediately at the edge of the opening. Possibly it may be best to have an experienced carpenter and workman to equip this part for you to insure its being right and the cost will be small. Line the inside of the rectangular opening with thin strips of cigar box wood or something similar in order to hold the glass from falling through, strips of adhesive tape or Passe Partout is placed around the edges to hold it fast to the board on top. Any kind of good substantial ledger paper which is free

from watermarks will do. Be sure to have the hole in the paper punched to match the pegs bar. Any office supply store where you secure the paper, will punch it for you or you may secure a punch and do it yourself to insure accuracy. It will be necessary also to have on hand a small supply of celluloid on which all drawing of backgrounds are made. Be sure when buying to only accept good, clear and transparent sheets. You will have no trouble in securing this in either large or small lots at any office supply house, be sure to specify a .005 inch thickness in ordering.

You will find later as you progress into this work, that celluloid is the most important time saver in animating a cartoon. Celluloids are used for all objects which are not in motion and any number can be used to properly take care of these idle objects. However, where an object is motionless for less than ten drawings it is, of course, carefully traced on a separate drawing each time, the celluloid being used only for the other objects which remain stationary. You must bear in mind constantly the value of these celluloids and prepare for them with care.

TO PREPARE sixteen thousand pen and ink cartoons, each a separate and distinct drawing and then to photograph

them one at a time on a strip of motion picture film is the task confronting the cartoonist who would amuse theatregoers by the animation of his work. This is only the mechanical part of his new work; there remains numerous other details in the making of animated cartoon films which together with those mentioned, make the undertaking quite sincere, however the remuneration in this line more than repays them for the vast amount of work, could it really be considered work. Perhaps, as in many cases, the film should require a month or more in the making and which could easily be viewed in less than twenty-five minutes on the screen, the artists receive all the way from \$2,000 to \$10,000 for a single reel of their mirth-provoking antics. As in the case Wisdor McKays' "The Sinking of the Lusitania" which involved 16,000 separate drawings and required nearly twenty-two months to execute; net approximately \$80,000 dollars or \$5.00 per drawing.

In the downtown district of New York City you will find the home of the "movie antics" produced by Lucius "Rube" Goldberg, whose work is known to the millions of newspaper readers. Those who are in position should visit this plant and become familiar with the steps required in the production of cartoon films, from the very inception of the

idea to the projection of the finished conception upon the screen.

The idea must be paramount in the production of animated cartoons, everything else is secondary. The audience of course does not have time to scrutinize the finer part of the technique in the drawing, but if the idea is good your production is bound to be a success. The animator once given an idea the remainder of the work is merely a matter of routine, he must, of course, use a certain amount of ingenuity, that is to either reduce the amount of work and still bring out the idea in the best possible manner, and also in securing unusual and clever effects. So with the finer ideas for the cartoon worked out carefully in the mind of the artist, it is ready for the mechanical processes.

Since the animated cartoon film tells its story by means of drawings, its production is largely a matter of preparing the thousands of drawings necessary to carry out the creator's ideas. The animation of a picture calls for separate drawings each of which are a trifle different from its predecessor. The big problem which the artist must solve is just how different to make the successive pictures, one can easily learn to judge this by laying the clean sheet on which the next drawing is to be made over the former one and by flipping it up and down can with a

little practice judge just how much to move an arm or leg to get the desired action. However, in every producing studio this task is under the supervision of the master artist whose experience is such that will enable him to direct his staff of routine artists.

A great deal of work is eliminated by the use of celluloid backgrounds. In this case the backgrounds of an animated cartoon are drawn but once. Only the action or animated objects must have a separate drawing, each being slightly different in order to give the impression of animation when the film is passing through the projector in the theatre. You will understand that the sheets on which animated objects are drawn are used in conjunction with the different backgrounds and in this way it gives the completed effect without the necessity of redrawing the background each time. Ofttimes the background is in the form of a border which covers certain parts of the sheet which contain action.

The artist starting into this work should take a great interest in the manipulation of these finished drawings under the camera. In my opinion every animator should be a good camera man or at least understand the principles by which the drawings are photographed. This will enable him to better go about the preparing of his drawings for animation. Considerable knowledge of mo-

tion is very important in properly animating a drawing in spite of the seeming simplicity of the finished which you view on the screen. You must realize that should the artist finish a scene having one character with his foot in the air or fail to stop all his characters at a standing position when he wishes to bring in more important action. Suppose, for instance you were preparing a scene of a man walking down a street, you must know how many sketches are necessary to have this character cover the distance at the proper gait. Too few will make the action jerky and too many will make the character lag. From five to seven positions are normally required to make a perfect step in walking. The master artist handles this part, indicating the difference between one drawing and the next and leaving the details of finishing the drawings to other members of his staff.

The artists work on an easel consisting of a slanting piece of ground glass held in a suitable frame (details of which will be explained in another part of the text). An electric light is placed below to illuminate his copies and to insure perfect duplicates in action. By laying a clean sheet of paper over the last drawing and indicating on it the difference of action between the new drawing and his former one, he can then easily tell at a glance the animation he has secured.

The greater mass of time is required for the preparation of the drawings, the photographing is a simple matter though very slow. All drawings are photographed by using a motion picture camera mounted on a substantial frame, erected for this purpose. The lens point directly downward and the drawing should lay exactly horizontal with the camera. The drawings are photographed on a similar registering device to that used in their making. The light used to illuminate the drawings is supplied by mercury vapor tubes placed on either side. Some studios use electrically operated cameras while others arrange a shaft and a crank running down from the camera, the ratio of gears being such that one turn of the crank cause one exposure in the camera.

THE author has endeavored to set forth to the student a full set of instructions embodying all the principles of animation and the production of the "movie" cartoon. The student is advised to study carefully the text matter and note every reference which is made to the plates before starting to work. At first it will be best to practice on cheap scratch pad paper.

In order that you may know just what

material is necessary in the full execution of this work, I have made out a list of every essential article as used by the experienced artist and the approximate cost.

Pegs	\$0.75
A paper punch.....	1.00
Paper punched (if desired) per 10075
Celluloid

In all cases the student may or may not have access to electricity. In the event electricity is not available you may arrange your board close to a window in such a manner that light will come under the board sufficiently to enable you to do satisfactory work.

You must bear in mind that the real success of this work depends upon keeping your work simple and that fine line shading or even in a measure cross hatching must be eliminated. Strong bold outline and solid blacks bring out the work most effectively. You can, of course, bear in mind that this field is as yet still in its infancy and is wide open to new ideas which may present themselves from time to time.

OFTTIMES the scenarios are not prepared by the same artist who animates the drawings, but are written and prepared

by an artist who does nothing but prepare scenarios. It is necessary in this case for the scenario artist to make his descriptions very vivid so that the animators will have no difficulty in preparing the proper kind and amount of drawing to properly bring out the idea. He must plan the movements of the characters and even figure accurately just how the action will be carried on and what parts of the layout will be disturbed in the movements.

You are to remember that as little as possible of the layout should be disturbed. You will understand by this that the original outlay is disturbed when the action passes in front of it and in this case the lines so disturbed must be traced each time until the action frees these lines and a celluloid overlay can replace them.

Let us take for example a simple scene in which the action will be that a man will walk in from the right, stop and turn to the audience, wink and scratch his head with his right hand. If you wish to carry the audience's attention, which is the primary object in either an advertising cartoon film or the regular feature release—you might have a table at the left side of the screen with a glass on it. Your character could pick up the glass with his right hand, turn again to the audience, wink, scratch his head and walk

off. This comprises the methods whereby the action is planned.

One thing is necessary in planning the action for a scene, and that is to note carefully the manner in which the settings are arranged, and how few lines will be disturbed in carrying out your proposed action. Referring again to the simple arranged scene of the man, the table and the glass; the man enters from the right, the table is on the left, the glass is set on the right edge of the table and the lines of action will disturb scarcely any lines of the scene. Also in repeating the winking and scratching the head, which is a good comedy feature, you can merely repeat the drawings which were used after he entered. The use of repeat drawing will be explained in another part of this instruction.

THE "MAYER" METHOD OF ANIMATION.

"Hy" Mayer has originated a very unique and interesting manner of producing motion picture cartoons, which seems to be used only by himself in his films which are released through Universal Film Corporation. It occurred to Mr. Mayer that it would be both interesting and practical to draw the cartoon on the screen, before the very eyes of the spectators. The camera is arranged

so that his hand and a portion of his arm is shown while at work.

In order to do this work effectively, it makes it necessary to construct a special device on which the producing camera is placed at exactly right angles to his drawing board. And also at such a distance that the image of his cartoon and portion of his moving arm will fill the aperture past which the film passes.

As inspiration is the source of nearly all original construction, Mr. Mayer waits until an inspiration for his cartoon presents itself, then calls the Universal headquarters instructing them to send up a photographer. When he arrives, the filming begins. Sometimes every move of the artist is reproduced upon the screen, but oftentimes the work becomes too long and would prove burdensome to the audience, so the photographer stops while Mayer works in a portion of the unimportant details. However I do not want you to get the idea that the artist really draws his creations as fast as they appear to be on the screen, in fact this would really be impossible, that is, to do it with any degree of accuracy. You must understand that there are sixteen exposures or separate photographs on each foot of film and the normal rate of projection is one foot per second or sixty feet per minute.

The motion picture camera is constructed with two separate driving mechanisms for different speeds. The one normally used in taking studio views or action as it really exists exposes one-half a foot of film at one complete turn of the crank and it is estimated that the operator can make two complete revolutions per second thus taking the picture at the exact rate it is to be projected. The other mechanism is geared much slower and only exposes one-sixteenth of a foot or one single picture at each revolution of the operating crank. This, the "trick grind" as it is called by studio men is used in producing all cartoon film, advertising film and sub-titles. This then explains the reason for the action of drawing appearing so rapid upon the screen. The fact the artist can move his hand or work in any amount of detail between each exposure and therefore cutting out a great deal of footage makes it readily understood that the action will naturally appear fast upon the screen.

Drawing for the Movies

THERE is a greater demand for animated cartoons in the moving picture industry today than the available supply. The large film producing companies are unable to meet this demand for "animateds" because there are not enough artists who can draw them.

In addition to the theatrical end of this field—which is very tremendous and an ever-growing—the possibilities for these new pen pictures in the commercial fields are almost unlimited, and what is more these fields have scarcely been touched upon.

A recent article in the "Moving Picture World," a periodical published in the interest of theatrical people, it heartily commends the rapid development of the animated cartoon:

"We are glad to see the cartoon on the screen make such decided progress. The cartoon, more than any other form of kinematographic work, emphasizes the great similarity between the screen and the newspaper as mediums of expression. The moving picture cartoon is far more effective than any still cartoon can be."

Many nationally known artists have now

decided to turn their entire time and talent toward this new field and find that their remuneration in this work is much larger than formerly.

An animator is not necessarily a master of pen and ink, an artist to make a success of this work need only study the principles of animation and, of course, be able to draw a little bit. Many of the moving picture studios which make animated cartoons for advertising work as well as the regular program films, employ as many as thirty and forty artists, of course a great many of whom do nothing more than black in drawings that have been outlined by some one else. In breaking into the field this is the natural process and is the first step. First, find out where the studios are located, should there be any in your city or make note of the list furnished with these instructions and make application either in person or by letter, also sending samples of your work. This is by far the most interesting branch of art work and there are better chances for advancement for the MAN who is in earnest and who wishes to make good.

Owing to the fact that it oftentimes takes months to produce a single film, these comic productions usually bring a small fortune, as it is quite a difficult job to construct one successfully. Do you realize that it requires

about thirty persons working eight hours a day to produce one "Mutt and Jeff" or "Dreamy Dud" film a week, and which you view in from 12 to 15 minutes on the screen.

You must understand that the process of drawing on celluloid is now being used almost exclusively in the making of animated cartoons. This, of course, eliminates the necessity of redrawing the entire scene each time, but only the part requiring motion. The drawing which is made upon transparent surfaces and which consists of the parts which remain immovable are placed under the drawing which contains the action and both are photographed at once. To get the effect of waving, or the wave motion, nearly two hundred drawings are required, each one beginning where the last left off, and so on.

You are perhaps familiar with J. R. Bray, the originator of the Bray Paramount Pictograph Cartoons and a former staff artist on Judge. He is, in fact, the one who made the production of animated cartoons possible. His staff today consists of over twenty artists and assistants, who turn out on an average of one complete film each week.

In the many other studios of New York, Chicago, San Francisco, Kansas City and many other large cities large numbers of former newspaper cartoonists are now working at this new trade. Nearly every comic

strip artist is having his work issued in animated form for the eager public.

While not a great deal of equipment is required to produce animated cartoons, a studio for this purpose is very similar to a photo-play studio. It has, of course, its directors, scenario writers, camera men, also scenery which make up the different backgrounds used beneath the celluloids. All this material, including all drawings, celluloids, backgrounds and so forth are filed away in the event that another scenario should call for similiar settings.

Points for Special Study

Technical Terms

THE FIELD.

The field is the space inside of which all action must operate freely. The field lines should be ruled on the glass of your drawing easel, 7x9½ inches is a very appropriate size for the field of action. All action should be started from behind the field lines before entering the field proper. Always try to keep in mind that simplicity must be the key note in constructing all the backgrounds which make up the field. You can readily see that if you add a bunch of unnecessary details, merely to suggest surroundings, you are going to detract from the main plot of the action. In cartoon advertising films, where separate figures are used on top of reverse wash and water color drawings, much more detail can be used both in the figures and the scene.

NUMBERING DRAWINGS.

The paper drawings are numbered in order, on the upper right hand corner of each sheet. The scene number is put on each drawing in the upper left hand corner, so as not to get the scene and action numbers confused. On each new scene the drawings begin at "one" and number up. In case

that you have already finished two succeeding drawings and numbered them, then notice that in order to bring out some minor point, it will be necessary to add three or four extra drawings between. Say the drawings were numbered 9 and 10, number the extra drawings 9A, 9B and 9C then follow with 10 as before. All celluloids are alphabetically indexed. Beginning A, B, C, etc. In case two or more celluloids are required for the first scene, indicate this A1, A2, A3, etc.

"REGISTERING."

Perfect register must be maintained at all times and is really the first consideration in preparing animated cartoon drawings, you must realize that the enormous magnification of the projected film causes even the slightest variation to become noticeable and as a consequence causes severe eye strain on the part of the audience following the characters in their "jumpy" path. It is necessary to connect the action from one position to another clean and even, jerky and jumpy action is especially to be avoided. It will be well to study people and see the different positions and characteristics which is evolved in walking and running. When the pins or pegs in the drawing easel and those on the photographing table are exactly the same and engage the perforated paper in the same manner, very little trouble will result if perfect

register has been maintained in tracing or copying.

TRACING DRAWINGS.

Ordinarily the action of each separate drawing should advance about one-quarter of an inch, this will vary of course, depending on the speed with which the action is to be made. In short action where the space is limited, make a division for each move and space the action each time, the distance of one of the divisions. You must pay careful attention in operating your action, that all moves are equi-distant. Very fast action should never be spaced further than three-quarters of an inch apart, because jumpy action is the result, if wider spacing is used and this is very bad for the eyes. While spacing drawing does not always govern the speed on the film, but it does govern the smoothness of the action—slow action in the drawing can be made much slower by being given a larger number of exposures under the camera. Always keep in mind that the fewer the exposures the faster the action will appear on the screen when projected at the normal rate. The drawings and exposures however, should have a common relation as to speed and spacing.

RULES FOR ANIMATION.

Always try to avoid having two or more

characters or objects in action at the same time, unless that the nature of the plot makes this necessary and then always try to check this as quickly as is possible. It is almost impossible for the eye to follow more than one character movement at one time. Being very careful each time to bring the characters which are to cease action to some natural and appropriate position before endeavoring to keep them idle for any period of time. It is best to indicate something which is occupying the attention of the motionless characters—there may be indication of thinking, resting or sleeping. Always try to in some way eliminate all characters whose presence have no bearing on the plot, as they only make unnecessary detail for the eye to follow.

“CUT OUTS.”

Cut outs are used by the camera man in many cases and therefore eliminating the necessity of making a large number of extra drawings. The cut out is any object which is cut out of paper or celluloid and laid over the drawings which are being animated. Let us take for example, if a man's hat blows off his head and out of the field of action, a separate drawing of his hat is made and carefully cut around the outside lines. This you understand makes it much easier for the artist, for instead of animating the movements of the hat in separate drawings, the

dummy cut out is moved under the camera until it reaches the edge of the field lines, thus bringing out the effect of the blowing out of the scene.

MODELS FOR HEADS.

It may seem very hard at first to retain a good likeness of all characters throughout your work. In order to keep your likenesses exact it is best to make a complete set of head positions of each character which you are animating. You can then trace direct from the model by placing it under the sheet in the exact position desired. You not only have the advantage of keeping a good likeness but hold a proportion which is rather difficult to secure free hand.

It is best to draw up a set of head models in a row and close together on a slip of narrow paper, which can easily be placed in any position under the sheet which you wish your likeness. From five to six different positions are required in order to turn the head. Starting with one rear view, one profile, one three-quarter front view, one front view and one three-quarters rear view. In order to make this for either right or left, simply turn the model sheet over and trace the same heads on the opposite side of the sheet. Fully armed with all these five positions of your character as a model you can instantly reproduce any position desired. In

the event you should at some time have use for a position other than those on the model sheet, then sketch this new position out carefully, being sure to get all the features accurately placed and retain a copy for your model slip for future use if desired.

REVERSE AND REPEATING OF DRAWINGS.

Take for instance a long freight train moving across the screen can be represented by locomotive, tender and several cars, a few separate drawings of a chain of cars are all that is necessary, by alternating these the effect of a very long train may be produced. The same process can be applied in other forms to meet other circumstances and conditions. The artist usually indicates by marking on the bottom of his drawing R. x R. when a drawing can be reversed and repeated. It requires five movements to produce the effect of a man putting a cigar in his mouth. From two to four more to put his head back in a slow and natural manner, from four to six for him to blow a cloud of smoke up to the top of the scene. This in all would require from fourteen to sixteen separate drawings. The man is to repeat this smoking several times in order to bring out the action. You will make a note at the bottom of drawing fourteen, "Reverse 8, 7, 6, 5, 4, 3, 2, 1 and repeat 1 to 14." This takes the cigar out of

the man's mouth and returns him to his original position, puts the cigar back in his mouth and blows the smoke cloud again. The movements can be repeated as many times as is necessary to properly bring out the idea and then the work can proceed with drawing fifteen. These points have merely been put in here to familiarize the student with the finer parts of the production end. There are many subjects to be taken up before you will be required to use the reverse and repeat drawing, but bear in mind that this will many times save you considerable work and should be worked whenever possible. Take for instance in a very simple scene as a dog chasing a man around a large tree or shed, it will possibly require from eight to ten drawings to make one complete circle, these same drawings can be manipulated in such a manner for say eight or ten feet of film or 160 exposures to produce the effect of a continual rotation.

PHOTOGRAPHING THE DRAWINGS.

The artist has very little to do with this branch of the work. However he should understand how the drawings go under the camera and as I have said before should have a good general knowledge of their manipulation as well as the general operation of the cameras. The photographer assembles the finished drawings and their corresponding

backgrounds in their proper order and taking successive pictures by giving them the proper number of exposures. Ofttimes the artist who makes the drawing, knowing the conditions under which it is to work, marks the number of exposures he thinks it should be given. Usually, however, this is left up to the good judgment of the photographer. The work proceeds not unsimilar to that of feeding a job press until the thousands of exposures are made at the rate of sixteen to every foot.

EXPOSURE.

This term means the exposing of the sensitive film while the drawing is under the camera, or in other words each turn of the crank produces one exposure there being sixteen to each foot of film. Each separate drawing may be given any number of exposures depending upon the speed of action needed. When fast action is wanted the drawing is given about two exposures, rapid action only one. When a man hesitates, the drawing is usually given about six exposures and a pause from 14 to 18. The photographer should fix an exposure list to operate action by. There can be no set rule for correct exposure which would apply under all circumstances, it is merely left up to the artist's integrity to plan his action and the proper speed.

The artist oftentimes makes out an exposure list to serve as a guide for the camera man. It consists of two ruled columns to take care of the "Numbering Up." In the first column put the number of the drawing and opposite it in the next column put the number of exposures and so on till the last. Whenever you come to where a new celluloid overlay is necessary indicate it with the letter which corresponds to the one on the drawing and underscore it.

How Good Action is Produced

THE artist must make close observations of natural movements of human beings, animals, fish and in fact everything which has action. Walking is considered the first division of action or motion. Let us then take up the different movements in walking as showing on the large action plate.

Eight separate drawings are required in order for the character to make two complete strides in a natural manner and return to his former standing position, as in Fig. 1A. Notice the drawing of Fig. 1 in the upper left hand corner. The figure is standing on his left foot with the right raised slightly and ready to move forward. It is very important to always keep the figure erect, otherwise the action will be jerky and unnatural. For smooth action, advance the body from $\frac{1}{4}$ to $\frac{3}{8}$ of an inch on the next drawing and complete the figure as shown in No. 2. The left foot maintains the same position as in Fig. 1 and must register before the left foot is traced. You will notice that the left leg from the hip to the foot has inclined forward with the move and is drawn indicating this action. The figure advances his right foot with sole of shoe parallel to the ground

Plate 2—Animated Action



and lifting his knee slightly as shown in Fig. 2. Fig. 3 brings about the first stride the left and right legs are straight out from each other for the first time. Notice particularly that the right foot lands directly on the heel and the left rises on the toe. However the left foot has not left the ground and will therefore remain identical in both Figs. 2 and 3.

Another detail which escapes the notice of many artists and which I had possibly mentioned just at this time, is the fact that in Fig. 3 when the character makes the stride the arms of the body are at their extreme positions. You understand that in order to keep a good balance at all times it is necessary for the right arm to move back as the right leg goes forward and the left comes forward in conjunction with the right leg. This you have possibly noticed many times in watching people walk, but a great many artists either fail to realize the importance of this factor or fail to emphasize it in their drawings. Thereby spoiling their work without really knowing what is wrong.

In Fig. 4 the right foot falls flat on the ground while the left is raised slightly. You will notice that the body is allowed to slope forward slightly, while in Fig. 5 which is only a mere movement of the left leg, it is necessary for the body to bend back. The

position in Fig. 5 is identical with that of Fig. 1 inasmuch as it completes one stride and brings the figure with the left leg raised instead of the right. This is followed by 6, 7 and 8 which are respectively duplications of Figs. 2, 3 and 4 with the exception that the figure is standing on the opposite leg.

Always bear in mind whether you are animating celluloid pen and ink figures or the black and white jointed figures as used in advertising film, to always bring your characters to a standing position before allowing them to remain motionless for any definite time, and then it is best to indicate that their attention is pre-occupied as in staring, thinking or sleeping. Therefore in stopping a figure always bring him to an upright position as in Fig. 10. Fig. 1B takes up the act of turning, three positions are required for this—one two-thirds view as shown, one direct back and other two-thirds opposite to the one shown. You will notice that a slightly different method of handling is used in Figs. 1A and 1B, this is to impress the student with the fact that he will be required to use all the different mediums and manners of handlings.

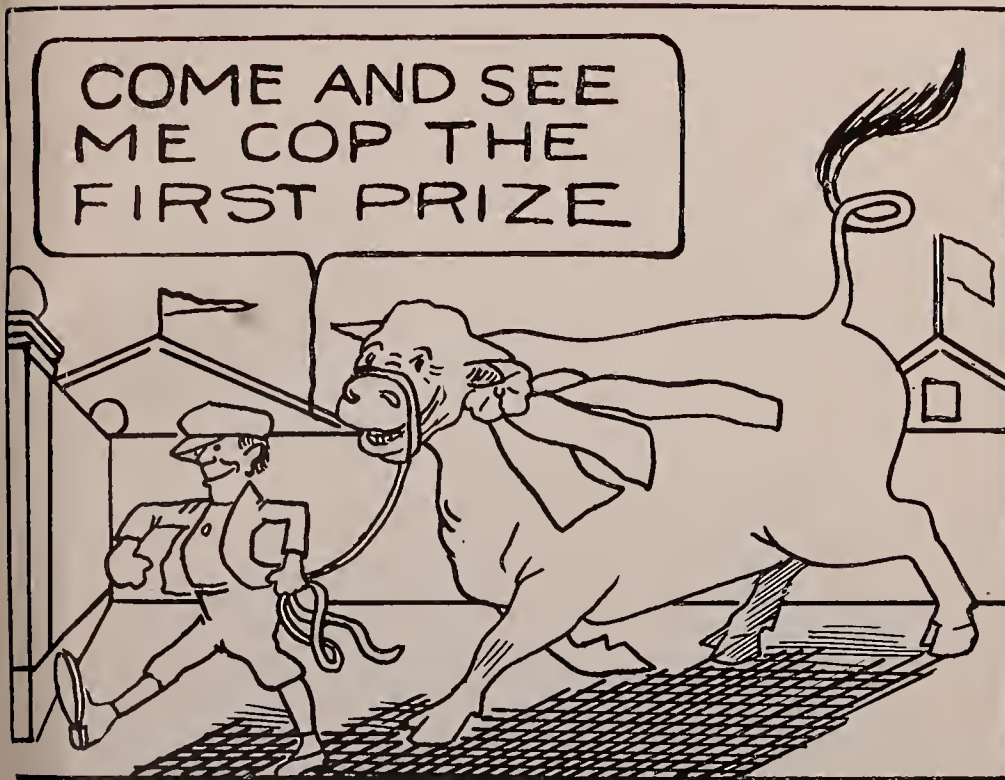
A suggestion for an interesting cartoon film is presented on this plate. The slightly "peevish" goat labeled "ACTION" could easily be carried out in a series of trips across the screen, interceded by wild exclamations from the colored character. This kind of a scene always gets the attention of an audience.



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Plate 3—Scenarios—Scenarios—For Cartoon Films



THE SCENE OF ACTION



THE WORDING AT FINISH

Description of Action and Wording

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CAMERAMAN

XT

O. K.

Cartoon Advertising Films

How They Are Made

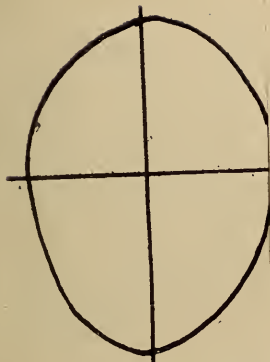
THIS is by far the broadest field for the aspiring cartoonist as it affords an opportunity to get your work before the reading public, long before it would be acceptable through other mediums.

You are no doubt aware of the fact that the numerous cartoon "ad" films which you see at every theatre all over the country, are made in reverse, in other words, the exposed film, which is used in their production is the direct positive stock and for that reason it is necessary to make all drawings in reverse, that is, to say, as far as the two colors are concerned. Everything which is to appear white on the screen is made dark in the drawing. After all it is not a handicap to do this, but instead it brings about a vast saving both in the way of time and money, and the fact is that it is just as easy, after a little practice to make the drawings in reverse. If this was not done, it would be necessary to make a positive print from every photographic impression made in the camera, in order to get the solid black background which is so pleasing to the eye on the screen.

Those of you who understand even the first principles of photography, know that a camera always photographs black white and white black in the first impression. In the ordinary kodak we call the first exposure a negative, because it is the opposite of the actual object. The only difference, however between negative and positive film is that it takes a longer exposure with positive to get the same result that the negative gets, but the positive gets a more definite image. Therefore the positive stock which is used in producing Animated Advertising Film is exactly what is wanted to produce the desired results at the smallest cost and less labor.

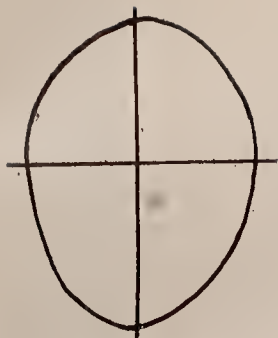
As has been said, everything which is to appear white on the screen must be made black in the drawing. You have noticed, much to your surprise that the trailer or tail piece which is comprised of the reading matter of the "ad" is brought on in an animated manner. This is done in the original on a plain white card with pure black showcard color. The letter artist does not stand by the camera and put on one letter a time as is the opinion of many. Instead the entire card is written in full as it is seen at the end of the completed ad on the screen. The entire act of animation is left to the camera man.

The fact of the matter is that every film



TYPE
WHIC
TO

PLATE-4-HEAD



TYPES OF FACES
WHICH ARE EASIEST
TO ANIMATE.

HEAD

W. C. GOODY

which you see used by advertisers is made in the camera backwards. That is the photographer starts off with the completed portion which you see last on the screen, then beginning at the bottom right hand corner and working toward the left and upward all the time, cuts away a portion of the card and giving a few exposures between each change.

He must be careful, however, that ample time is given between each change for the audience to easily read all the wording, before more comes on. It has been scientifically figured that eight turns or one-half foot of film (which amounts to one-half a second on the screen), should be given the average sized word of six to seven letters.

Then when the photographer comes to the part requiring the action of the characters, he proceeds as before, placing the finished scene and all the characters under the camera first, and keeping in mind that all characters must walk backwards, in order to have the right action when it is run through the projector.

Usually for this work, only one drawing is made for each character and one separate drawing for the scene. The characters have jointed legs, arms, etc., also removable heads and layover expressions, so by a careful

manipulation a very clever and lifelike effect can be obtained.

You see by having the drawings prepared in this manner, with jointed legs, arms and layover faces, it is not necessary to make a new drawing for each exposure under the camera and thereby speeds up the production, for the experienced camera man can manipulate these characters much more quickly and get any original effects which he may desire. One objection however, to this method of animation of cartoon figures, is that many times the figures look entirely too stiff, for the reason that **one** drawing is made to do all the way through the action. If a separate drawing was made, every little necessary action could be brought out in a natural manner, such as a sudden twist of the body or similar action.

This is a branch of cartoon work which I am sure will prove interesting as well as valuable to every young cartoonist, or the experienced man in the "game" for that matter, for it trains the eye to judge well balanced settings, gives you a knowledge of proper action and just what positions a person assumes in taking a step.

You have no doubt wondered how certain scenes were made to change slowly into something different, yet it was done in such a manner that it was scarcely detectable to

the eye. This is merely a double exposure of the film. The film is rapidly exposed to one scene then the lens is covered and the film turned back the exact number of turns which it was moved forward and then the scene is changed and another rapid exposure is made, thus forming the above mentioned phenomenon.

The Market

WHERE and how can I find a market for an animated cartoon or "film ad" scenario? This is one of the questions which is occasionally asked by the beginner in the field. But once you get started in the work and begin to understand the principles of this new profession you find that the number of markets are unlimited. Every theatre runs from eight to ten local advertising films which are changed every week beside the regular daily program of animated pictograph film. All this must be produced by the busy artist in the few available studios over the country. After some practice on the exercises and your efforts have resulted in good animation, one of the best ways of marketing the product is to co-operate with a local camera man on a fifty fifty basis. The most common plan which is exercised is that the artist draw the cartoons and the camera man will photograph and distribute the films to the different exhibitors. However, it will in many cases be best to just hire the camera man to photograph the cartoon at a reasonable rate per foot, which should never in any event be over 10 cents per foot. Once you have obtained the negative film and the first print which enables you to solicit your own business and display your work on the screen, if requested. Any num-

ber of positive prints can be made from the original negative which you secure from the camera man.

In order to acquaint you with, just what is wanted by the motion picture producers and exhibitors, let me say that the cartoon (that is the part containing the figure animation) must lead up to some excuse for letters or copy to appear for advertising purposes. I am going to suggest a few simple scenarios in order that you may understand just the nature of the work which is being accepted by the large moving picture houses.

A very beautiful, and well dressed maid appears upon the screen, standing beside an old fashioned dash churn. She churns very steadily for a time, then stops, turns to the audience and smiles. (Note—In making the up and down strokes in churning about three drawings are required in order to raise the “dasher” and a like number to lower it, thereafter the churning can be carried on, by repeating the used drawings). When she continues churning for a time, then suddenly letters begin to appear coming from the top of the churn, they rise to the top of the screen and form the wording “Use Home-Maid Butter,” the scene then flashes off and remainder of wording appears simultaneously. The lettering, however is the duty of the letter artist or card writer and does not affect the artist.

A small figure enters from the left carrying a trunk, another character enters from the right and speaking in balloon wording says, "Say, Mr. why don't you call the ——" the scene can then fade off and the advertising copy for some transfer service company appears.

The large firms who specialize in animated advertising cartoons are constantly seeking the clever cartoonist's work. The work in many cases must of necessity be very simple, as in the case of the horse running as shown on the plates, this is done entirely in brush and shows very effectively just how very rapid action can be designated. Therefore, this is in many cases the best chance for the student securing a salaried position. The work being varied, the workers are divided into three classes. Professional animators receive from \$40.00 to \$150.00 per week, being rated of course in accordance to the amount of footage they turn out each week. The celluloid overlay artists who are proficient at tracing earn from \$25.00 to \$40.00 per week. The tracing which is done mostly by girls pays from \$12.00 to \$25.00 per week.

I have prepared a special plate which describes just how the scenarios are prepared and used in the average ad film producing studio. It will be to your advantage to study this very carefully both as to the sketch sug-

gestions and the descriptive matter which describes the action for the benefit of the customer (first) and later the camera man. Both the sketch and lettering is not supposed to be the best or even accurate, it is done in pencil and is intended merely to show the customer what will be the nature of the finished film.

A list of the largest cartoon film producers may prove interesting and valuable to you:

The Rothacker Film Co., Chicago, Ill.

The Camel Film Co., Chicago, Ill.

Bray-Paramount Co., New York, N. Y.

The Wm. Fox Film Co., New York, N. Y.

The Ad-Film Co., Kansas City, Mo.

United Film Ad Co., Omaha, Neb.

Rosenfield Publicity Service, Des Moines, Iowa.

THE FUTURE.

“The longer I live said Fowell Buxton, whose name is connected in philanthropy with that of Wilberforce, the more certain I am that the great difference between men, between the feeble and the powerful, the great and the insignificant, is ENERGY—INVINCIBLE DETERMINATION—a purpose once fixed, and then death or victory. That quality will do anything that can be done in this world—and no talents, no circumstances, or opportunities will make a two-legged creature a MAN without it.”

The Man Who Wins

The man who wins is an average man,
Not built on any particular plan,
Not blest with any particular luck
Just steady and earnest and full of pluck,
When asked a question, he does not
guess,

He knows and answers "No" or "Yes"
When set a task the rest can't do,
He buckles down 'till he puts it through,
Three things he's learned: that the man
who tries

Finds favor in his employer's eyes;
That, it pays to know more than one
thing well;
And to hold the tongue when others tell.

So he works and waits 'till one fine day
There's a better job with better pay;
And the men who shirked whene'er they
could

Are bossed by the man whose work made
good.

For the man who wins is the man who
works,

Who neither labor nor trouble shirks,
Who uses his hand, his head, his eyes,
The man who wins is the man who tries.

—Door Ways.





HECKMAN
BINDERY INC.

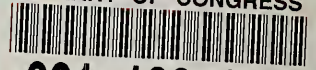


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